

OIB - WP-3D Orion 05/11/16 Science Report

Aircraft:

[WP-3D Orion](#) ([See full schedule](#))

Date:

Wednesday, May 11, 2016

Mission:

OIB

Mission Location:

Kangerlussuaq, Greenland

Mission Summary:

Mission: Umanaq B (priority: high)

This mission is designed (along with Umanaq A) to refly the 2012 Umanaq coast-parallel grid with a pair of interlaced missions. This mission by itself reoccupies a grid spaced at 10 km near the coast, widening to 20 km upstream. The two flights together establish a grid at half this spacing. We also fly a pair of lines over the Disko Island ice cap, and another over the Nuussuaq Peninsula. This flight retains a high priority for 2016 because it continues an intra-annual time series with the spring and fall 2015 campaigns along these lines.

Weather across southern Greenland today was dominated by a frontal system roughly situated along the island's southwestern coast. Cloudiness associated with this system entirely covered the southern third of Greenland, and the system was forecast to move slowly northward during the day. This covered all of our baseline-priority flight areas in cloud, but left the Nuussuaq-Umanaq area, and the Geikie Peninsula, clear. We selected the Umanaq B mission because it was the highest-priority flight of those in the clear areas, and because it, unlike Geikie, can be reflown during the late summer campaign with the Falcon aircraft.

All instruments performed normally today. The network problem from two days ago recurred this morning during preflight, but we were able to work around the issue successfully and we lost no science data. The root cause has so far eluded us.

We encountered some cloudiness at the southern ~40 km of the inland lines later in the day, and also some cloudiness over parts of the inland-most line for much of its length. We were forced to abandon science operations halfway along that final southbound line due to a hydraulic leak and return directly to base at Kangerlussuaq. Overall, we estimate successful data collection today at 80% of the planned mission.

Data volumes:

ATM: 27 Gb

FLIR: 3.2 Gb

DMS: 69 Gb

Ku-Band Radar: 208 Gb

MCoRDS: 1.2 Tb

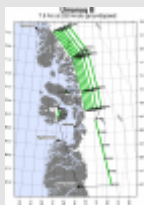
Snow Radar: 208 Gb

BESST: xx Gb

total data collection time: 5.9 hrs

Images:

Map of today's flight



[Read more](#)

Sermeq Kujatdleq



[Read more](#)

Umiamako Glacier



[Read more](#)

Kangerdlugssup Glacier



[Read more](#)

Submitted by:

John Sonntag on 05/11/16

Related Flight Report:

Other: NOAA P-3 05/11/16

Flight Number:

Land Ice Umanaq B

Payload Configuration:

OIB Spring 2016

Nav Data Collected:

No

Total Flight Time:

7.1 hours

Submitted by:

John Woods on 05/11/16

Flight Segments:

From:	BGSF	To:	BGSF
Start:	05/11/16 10:51 Z	Finish:	05/11/16 17:56 Z
Flight Time:	7.1 hours		
Log Number:	16M030	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	16M030
Flight Hours Approved in SOFRS	200
Total Used	148.7
Total Remaining	51.3

16M030 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
03/22/16	ICF1	Check	2	2	198
03/23/16	ICF2	Check	3.4	5.4	194.6
04/12/16	ICF3	Check	1.3	6.7	193.3
04/15/16	Repo 1	Ferry	0.5	7.2	192.8
04/16/16	Repo 2	Ferry	2.9	10.1	189.9
04/18/16	Repo 3	Ferry	7.1	17.2	182.8
04/19/16	Sea Ice Eureka	Science	7.3	24.5	175.5
04/20/16	Sea Ice Laxon Line	Science	8.7	33.2	166.8
04/21/16 - 04/22/16	Sea Ice SIZRS Zigzag	Science	8.3	41.5	158.5
04/30/16	Sea Ice South Basin Transect	Science	8.8	50.3	149.7
05/03/16	Sea Ice North Pole Transect	Science	7.6	57.9	142.1
05/04/16	Sea Ice South Canada Basin	Science	7.9	65.8	134.2
05/09/16	Land Ice Zachariae-79N	Science	7.6	73.4	126.6
05/10/16	Land Ice Northwest Coastal A	Science	6	79.4	120.6
05/11/16	Land Ice Umanaq B	Science	7.1	86.5	113.5
05/12/16	Land Ice Southeast Coastal	Science	7.3	93.8	106.2
05/13/16	Land Ice Helheim-Kangerdlugssuaq	Science	7.8	101.6	98.4
05/14/16	Land Ice SW Coastal A	Science	7.8	109.4	90.6
05/16/16	Land Ice Thomas-Jakobshavn 01	Science	7.9	117.3	82.7
05/17/16	Land Ice Helheim-Kangerdlugssuaq Gap B	Science	8.1	125.4	74.6
05/18/16	Land Ice IceSat-2 Central	Science	7.7	133.1	66.9
05/19/16	Land Ice East Glaciers 01	Science	7.1	140.2	59.8
05/21/16	Ferry BGSF_KMCF	Ferry	8.5	148.7	51.3

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

[NASA Home](#)

Page Last Updated: April 22,
2017

Page Editor: Erin Justice

NASA Official: Bruce A.

Tagg

- [Budgets, Strategic Plans and Accountability Reports](#)
- [Equal Employment Opportunity Data Posted Pursuant to the No Fear Act](#)
- [Information-Dissemination Policies and Inventories](#)

- [Freedom of Information Act](#)
- [Privacy Policy & Important Notices](#)
- [NASA Advisory Council](#)
- [Inspector General Hotline](#)
- [Office of the Inspector General](#)
- [NASA Communications Policy](#)

- [Contact NASA](#)
- [Site Map](#)
- [USA.gov](#)
- [Open Government at NASA](#)

Source URL: https://airbornescience.nasa.gov/science_reports/OIB_-_WP-3D_Orion_05_11_16_Science_Report